

Abstrak

HUBUNGAN ESTIMASI KADAR ASAM VALPROAT DALAM DARAH TERHADAP *CLINICAL OUTCOME* PASIEN PEDIATRIK PENDERITA EPILEPSI PADA KOMUNITAS EPILEPSI DI INDONESIA

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Latar Belakang: Asam valproat tergolong dalam obat dengan indeks terapi sempit (50-100 mg/L) sehingga diperlukan adanya pemantauan kadar terapi agar tetap berada dalam rentang. Salah satu metode yang dapat digunakan adalah metode pendekatan secara farmakokinetika. Penelitian ini bertujuan untuk mengetahui perkiraan kadar asam valproat dalam darah dan *clinical outcome* yang diperoleh pada pasien epilepsi anak jika dilihat dari durasi bebas kejang.

Metodologi: Penelitian ini merupakan penelitian observasional kuantitatif dan menggunakan data prospektif. Pengumpulan data dilakukan dengan menyebarkan *google form* dan wawancara melalui telepon selama 2 bulan. Pengambilan sampel dengan metode *total sampling* dengan memperhatikan kriteria inklusi dan eksklusi. Analisis data yang digunakan adalah univariat dan uji chi-square.

Hasil Penelitian: Didapatkan 47 pasien yang memenuhi kriteria inklusi. Sebanyak 48,94% pasien menggunakan asam valproat secara monoterapi dan 51,06% secara politerapi. Pada kelompok monoterapi, sebanyak 69,37% pasien memiliki estimasi kadar asam valproat dibawah rentang terapi dan 30,43% didalam rentang terapi dengan 82,6% pasien menunjukkan *clinical outcome* ≥ 6 bulan serta 17,4% pasien menunjukkan *clinical outcome* < 6 bulan. Pada kelompok politerapi, sebanyak 70,83% pasien memiliki estimasi kadar asam valproat dibawah rentang terapi, 25% didalam rentang terapi, dan 4,17% diatas rentang terapi dengan 45,83% pasien menunjukkan *clinical outcome* ≥ 6 bulan serta 54,17% pasien menunjukkan *clinical outcome* < 6 bulan. Hasil uji chi-square pada kelompok monoterapi ($p=0,557$) dan politerapi ($p=0,649$) memberikan hasil uji statistik ($p>0,05$) bahwa tidak ada hubungan yang signifikan antara estimasi kadar asam valproat dalam darah terhadap *clinical outcome*

Kesimpulan: Tidak terdapat hubungan antara estimasi kadar asam valproat dalam darah terhadap *clinical outcome* pasien pediatrik epilepsi pada komunitas epilepsi di Indonesia baik pada kelompok monoterapi maupun politerapi.

Kata kunci: Asam valproat, epilepsi, estimasi kadar, *clinical outcome*

Abstract

THE CORRELATION OF ESTIMATED VALPROIC ACID LEVELS IN THE BLOOD TO THE CLINICAL OUTCOME OF EPILEPSY PEDIATRIC PATIENTS IN INDONESIA'S EPILEPSY COMMUNITY

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Background: Valproic acid is a drug with a narrow therapeutic index (50-100 mg / L), so it is necessary to monitor the therapeutic level to keep it within the range. One of the methods appropriate to use is a pharmacokinetic approach. This research aims to determine the estimated level of valproic acid in the blood and the clinical outcome obtained in epilepsy pediatric patients when viewed from seizure-free duration.

Methodology: This research is quantitative observational research and used prospective data. The data collection was carried out by distributed google forms and telephone interviews in two months. Sampling was taken by the total sampling method, by considered the inclusion and exclusion criteria. The analysis of the data used a univariate and chi-square test.

Results: There were 47 patients comply with the inclusion criteria. There were 48.94% of patients used valproic acid on a monotherapy basis and 51.06% on a polytherapy basis. In the monotherapy group, 69.37% of patients were estimated valproic acid level below the therapeutic range, and 30.43% are in the therapy range, with 82.6% of patients showed clinical outcomes \geq six months and 17.4% of patients showed clinical outcomes $<$ six months. In the polytherapy group, 70.83% of patients were estimated valproic acid level below the therapeutic range, 25% within the therapeutic range, and 4.17% above the therapeutic range, with 45.83% of patients showed clinical outcomes \geq six months and 54.17% patients showed clinical outcomes $<$ six months. The result of the chi-square test in the monotherapy ($p = 0.557$) and politherapy ($p = 0,649$) groups showed $p > 0,05$, there was no significant correlation between the estimation of valproic acid levels in the blood to the clinical outcome.

Conclusion: There was no correlation between the estimation of valproic acid levels in the blood to the clinical outcome of epilepsy pediatric patients in Indonesia's epilepsy community, both in the monotherapy and polytherapy groups.

Keywords: Valproic acid, epilepsy, level estimation, clinical outcome